IN THE CLAIMS

Please amend Claim 13, and add Claims 26-28, to read as follows.

1-12. (Canceled)

13. (Currently Amended) A piezoelectric actuator comprising a substrate and an epitaxial ferroelectric film provided on said substrate, wherein said epitaxial ferroelectric film satisfies a relation $z/z_0 > 1.003$, where z is the c-axis lattice constant of the epitaxial ferroelectric film and z_0 is the c-axis lattice constant of a material constituting said epitaxial ferroelectric film in a bulk state, and

wherein said epitaxial ferroelectric film also satisfies a relation $0.997 < x/x_0 < 1.003$, where x is the a-axis lattice constant of the epitaxial ferroelectric film and x_0 is the a-axis lattice constant of a material constituting said epitaxial ferroelectric film in a bulk state,[[.]] said epitaxial ferroelectric film has a thickness within a range of 100 nm to 10 μm, and said epitaxial ferroelectric film includes a lead (Pb) atom and an oxygen (O) atom as constituent atoms.

14. (Canceled)

15. (Original) A piezoelectric actuator according to claim 13, further comprising at least a buffer layer between said substrate and said epitaxial ferroelectric film.

16. (Original) A piezoelectric actuator according to claim 15, wherein at least one of said substrate and said buffer layer is electroconductive.

17. (Previously Presented) A piezoelectric actuator according to claim 13, wherein a crystal orientation degree of a crystal plane of said epitaxial ferroelectric film parallel to a crystal plane of a surface of said substrate, measured by a $2\theta/\theta$ method with an X-ray incident angle θ to the crystal plane of said epitaxial ferroelectric film parallel to the crystal plane of the surface of said substrate, is 90 % or higher.

18. (Previously Presented) A piezoelectric actuator according to claim 13, wherein a crystal plane of said epitaxial ferroelectric film parallel to a crystal plane of a surface of said substrate has a crystal orientation degree of 99% or higher.

19. (Original) A piezoelectric actuator according to claim 13, wherein said epitaxial ferroelectric film has a perovskite structure.

20. (Canceled)

21. (Previously Presented) A piezoelectric actuator according to claim 13, wherein said epitaxial ferroelectric film has a tetragonal crystal structure and a crystal plane of said epitaxial ferroelectric film parallel to a crystal plane of a surface of said substrate is a (001) plane.

22. (Previously Presented) A piezoelectric actuator according to claim 13, wherein said epitaxial ferroelectric film has a rhombohedral crystal structure and a crystal plane of said epitaxial ferroelectric film parallel to a crystal plane of a surface of said substrate is a (111) plane.

23. (Previously Presented) A piezoelectric actuator according to claim 13, wherein said epitaxial ferroelectric film has a hexagonal crystal structure and a crystal plane of said epitaxial ferroelectric film parallel to a crystal plane of a surface of said substrate is a (0001) plane.

24. (Previously Presented) A piezoelectric actuator according to claim 13, wherein said epitaxial ferroelectric film has a rhombic crystal structure and a crystal plane of said epitaxial ferroelectric film parallel to a crystal plane of a surface of said substrate is a (011) plane.

25. (Original) A liquid discharge head for discharging a liquid utilizing a piezoelectric actuator according to claim 13.

26. (New) A piezoelectric actuator according to claim 13, wherein said epitaxial ferroelectric film satisfies a relation $z/z_0 \leq 1.050$.

27. (New) A piezoelectric actuator according to claim 13, wherein a residual

polarization of said epitaxial ferroelectric film is 35 $\mu C/cm^2$ or higher.

28. (New) A piezoelectric actuator according to claim 13, wherein a spontaneous polarization of said epitaxial ferroelectric film is 80 $\mu C/cm^2$ or higher.